

Curriculum Vitae

Personal details

Family name Hofreither
First name Clemens
Title Dr. DI
Date of birth January 30, 1984
Place of birth Linz, Austria
Nationality Austria
Address Gstetten 12, 3350 Haag, Austria

Academic Career

2002 High School Diploma (“Matura”) in Stiftsgymnasium Seitenstetten, Lower Austria.

2002–2003 Studies in “Technische Mathematik” at Johannes Kepler University Linz, Austria.

2003–2004 Civilian service at Lower Austrian Red Cross, Stadt Haag.

2004–2008 Continued studies in mathematics in Linz.

Oct. 2008 Graduated as “Diplomingenieur”.
Diploma thesis: *Boundary Element Solvers for Water Wave Simulation in a Model Basin* (Supervisor: U. Langer)

2008–2012 PhD studies at the Doctoral Program “Computational Mathematics” at Johannes Kepler University Linz, Austria.

Dec. 2012 Completed degree “Doktor der technischen Wissenschaften”.
PhD thesis: *A Non-standard Finite Element Method using Boundary Integral Operators* (Supervisor: U. Langer)

until Postdoc in the project “Geometry + Simulation” at Johannes Kepler University Linz

Jul. 2013 since Postdoc in the project “AComIn” at Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Sofia

Aug. 2013

Research interests

- Finite element methods, in particular non-standard and Trefftz-type FEM
- Isogeometric analysis
- Multigrid solvers
- Convection-diffusion problems

- Boundary element methods
- Multivariate interpolation by Radon projections

Teaching

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| WS 2006/07 | Tutor: Numerical Mathematics, Diploma program Mechatronics, Johannes Kepler University Linz, Austria. |
| WS 2007/08 | Tutor: Numerical Mathematics, Diploma program Mechatronics, Johannes Kepler University Linz, Austria. |
| WS 2011/12 | Proseminar “Mathematische Modelle in der Technik” and supervision of bachelor theses, Johannes Kepler University Linz, Austria. |
| SS 2013 | Tutorial “Numerik elliptischer Probleme”, Johannes Kepler University Linz, Austria. |

Research stays abroad

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| Oct 2010–Feb 2011 | Universität des Saarlandes, Saarbrücken, Germany. Visiting the group of Prof. Sergej Rjasanow. |
| Jun–Jul 2011 | Todor Kableshkov University of Transport, Sofia, Bulgaria. |
| Mar–Apr 2012 | Universität des Saarlandes, Saarbrücken, Germany. Visiting the group of Prof. Sergej Rjasanow. |
| May–Jun 2012 | Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria. |

Additional work experience

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| 2002–2008 | Part-time and intermittent full-time employment at K+K Industrial Controls, Haag, Lower Austria, as software engineer in design and implementation of automotive plant control systems. |
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Language skills

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| German | Native speaker. |
| English | Excellent knowledge: higher education predominantly in English, master and PhD theses written and defended in English, regular participation in and presentations at English-language workshops and conferences, 6 months spent in USA. |
| French | Basic working knowledge: four years of high school education. |

Computing skills

- experience in working with and developing software for Microsoft Windows and GNU/Linux operating systems
- excellent knowledge of C/C++, Python, MATLAB and Mathematica

- good to very good knowledge of C#, Java, JavaScript, Lua, Lisp, Haskell languages
- basic knowledge of Fortran
- familiarity with OpenMP and MPI parallelization paradigms
- extensive experience in developing high-performance industrial and scientific software

Participation in Grants

- Grant for Young Researchers DMU 03/17: “Algorithms for Approximate Reconstruction of Functions Based on Radon Projections and PDEs” funded by the Bulgarian National Science Fund.
- “Effective methods and algorithms for geometrical modeling” supported by the Bulgarian Science Fund under Grant No. DFNI-T01/0001.
- Granted project “Numeric-Symbolic Approximation with Radon Projections” in the framework of the “Wissenschaftlich-technische Zusammenarbeit” (WTZ) organized by the Österreichischer Austauschdienst (OeAD) and by the Bulgarian Ministry of Education, Youth and Science.